

Approved For Release 2001/04/02 : CIA-RDP78B04747A000300050001-3
R & D CATALOG FORM

4 February 1966

1. PROJECT TITLE/CODE NAME Zoom Tube Magnifier (Change of Scope)		2. SHORT PROJECT DESCRIPTION Development of an improved design zoom tube magnifier.	
3. CONTRACTOR NAME [REDACTED]		4. LOCATION OF CONTRACTOR [REDACTED]	
5. CLASS OF CONTRACTOR Manufacturer		6. TYPE OF CONTRACT CPFF	
7. FUNDS FY 19 64 \$ [REDACTED] FY 19 66 \$ [REDACTED] FY 19 \$ [REDACTED]		8. REQUISITION NO. N/A	BUDGET PROJECT NO. NP-IO-12
		10. EFFECTIVE CONTRACT DATE (Begin - end) February 1966-February 1967	11. SECURITY CLASS. A.A. - Confidential T. - Unclassified W. - Unclassified
12. RESPONSIBLE DIRECTORATE/OFFICE/PROJECT OFFICER TELEPHONE EXTENSION DDI/NPIC/P&DS/[REDACTED] 3021			
13. REQUIREMENT/AUTHORITY This zoom magnifier is required to provide the P.I. with a small, readily available instrument which will permit examination of small scale photography at magnifications between 8X and 18X. 25X1A			
14. TYPE OF WORK TO BE DONE The zoom tube magnifier initially developed by [REDACTED] under Contract [REDACTED] meets some but not all of the development objectives. This project provides for the conclusion of additional, company-funded, engineering effort (Contd)			
15. CATEGORIES OF EFFORT			
MAJOR CATEGORY Direct Viewing Systems		SUB-CATEGORIES Optical Systems Visual Photo Interpretation	
16. END ITEM OR SERVICES FROM THIS CONTRACT/IMPROVEMENT OVER CURRENT SYSTEM, EQUIPMENT, ETC. One Model III prototype 8X - 18X Zoom Tube Magnifier, manual of operation, reproducible drawings and monthly progress reports.			
17. SUPPORTING OR RELATED CONTRACTS (Agency & Other)/COORDINATION This project is a expansion of Contract [REDACTED] and is a logical extension of the development work carried out on a prototype zoom tube magnifier under that contract. 25X1A			
18. DESCRIPTION OF INTELLIGENCE REQUIREMENT AND DETAILED TECHNICAL DESCRIPTION OF PROJECT (Continue on additional page if required) The most used item of P.I. equipment in NPIC is the 7X tube magnifier; however, the instrument is inadequate for the exploitation of the small scale imagery obtained from current operational systems. This is also true for images on the outermost portions of high altitude obliques. The use of a higher magnification fixed power tube magnifier presents its own problem since as the power increases, the field of view decreases; furthermore, the working distance of the magnifier decreases to the point that the instrument can not be (Contd)			
19. APPROVED BY AND DATE			
OFFICE	DEPUTY DIRECTOR		DDCI

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NP-IO-12

25X1A 14. already carried out by the contractor on an improved design magnifier. Because of their failure to meet all of the objectives 25X1A on the initial effort, [REDACTED] proposes to provide [REDACTED] 25X1A toward the total cost of [REDACTED]

18. comfortably used. The present limit for a reasonably comfortable magnifier is approximately 13X.

It is apparent that no fixed magnification instrument can provide the proper compromise between optimum magnification and optimum field of view; consequently, a continuously variable (Zoom) tube magnifier is highly desirable.

25X1A Following the somewhat less than successful development of a prototype zoom tube magnifier under this contract further design studies by [REDACTED] indicate that they can now meet the following parameters:

1. Magnification range of 8x to 18x
2. Weight under 10 ounces
3. Maximum height of 106mm
4. Field of view: 16.3mm at 8x
12.0mm at 13x
5.5mm at 18x
5. Axial resolution: 218 1/mm at 8x
400 1/mm at 18x
6. Distortion: -5.3% at 8x
-4.4% at 13x
+0.2% at 18x
7. Working distance of 12.3mm

25X1A [REDACTED] also indicates that the clear plastic sleeve at the base of the instrument will accept standard reticles in a special mount. A removable chain ring will be provided on the instrument body to enable it to be suspended from the neck if desired.

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